

# Office of Statistics and Data Management

Medicare/Medicaid Decision Support  
Systems

U.S. Department of Health and Human Services  
Health Care Financing Administration  
Bureau of Data Management and Strategy

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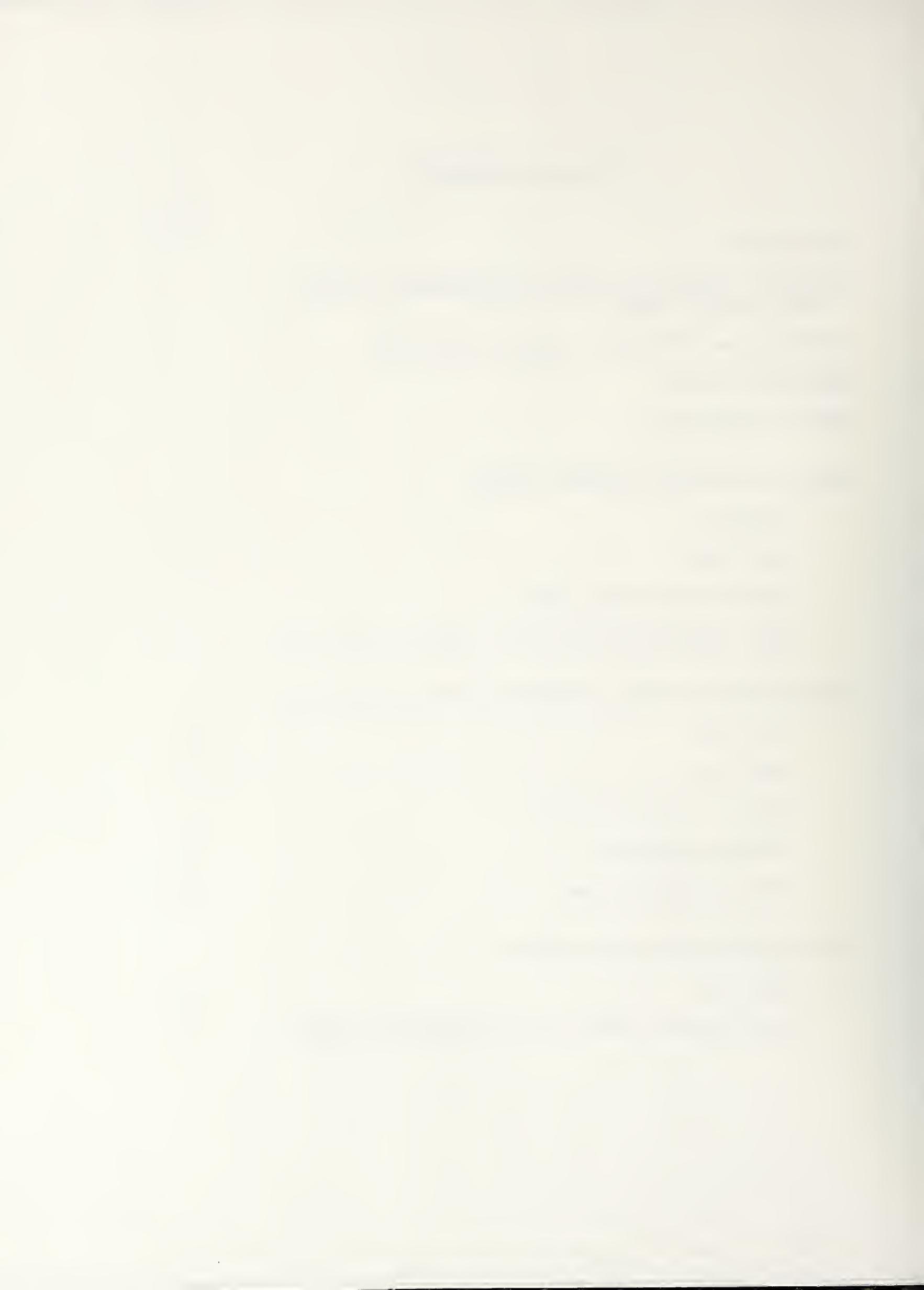
Medicare/Medicaid Decision Support  
Systems

June, 1989



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## INTRODUCTION

The Office of Statistics and Data Management (OSDM) performs the following functions:

Manages HCFA Medicare and Medicaid decision support systems.

Manages special program operational and statistical systems, e.g., Part B Medicare Annual Data Files (BMAD), Hospital Cost Report Information System (HCRIS), End Stage Renal Disease Program Management and Medical Information System (ESRD PMMIS).

Evaluates and monitors the quality of administrative and special program data.

Develops data and analyses to support actuarial methods, estimates and premium development.

Develops and publishes program statistical information.

Prepares and disseminates descriptive statistics on the Medicare and Medicaid programs.

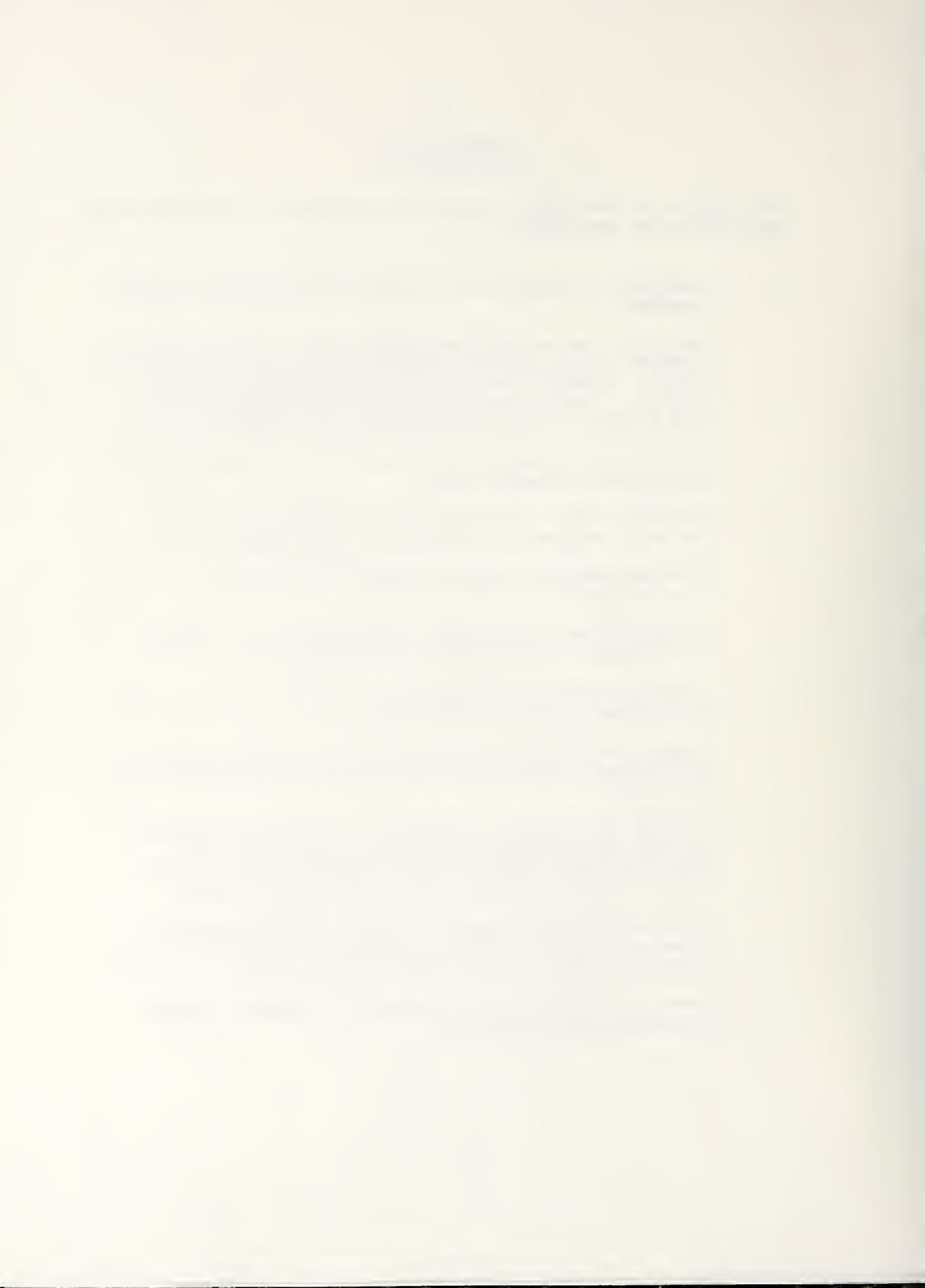
Develops data and analyses to support rate setting and payment reform initiatives.

Manages Privacy Act and Freedom of Information Act activities within the Bureau of Data Management and Strategy.

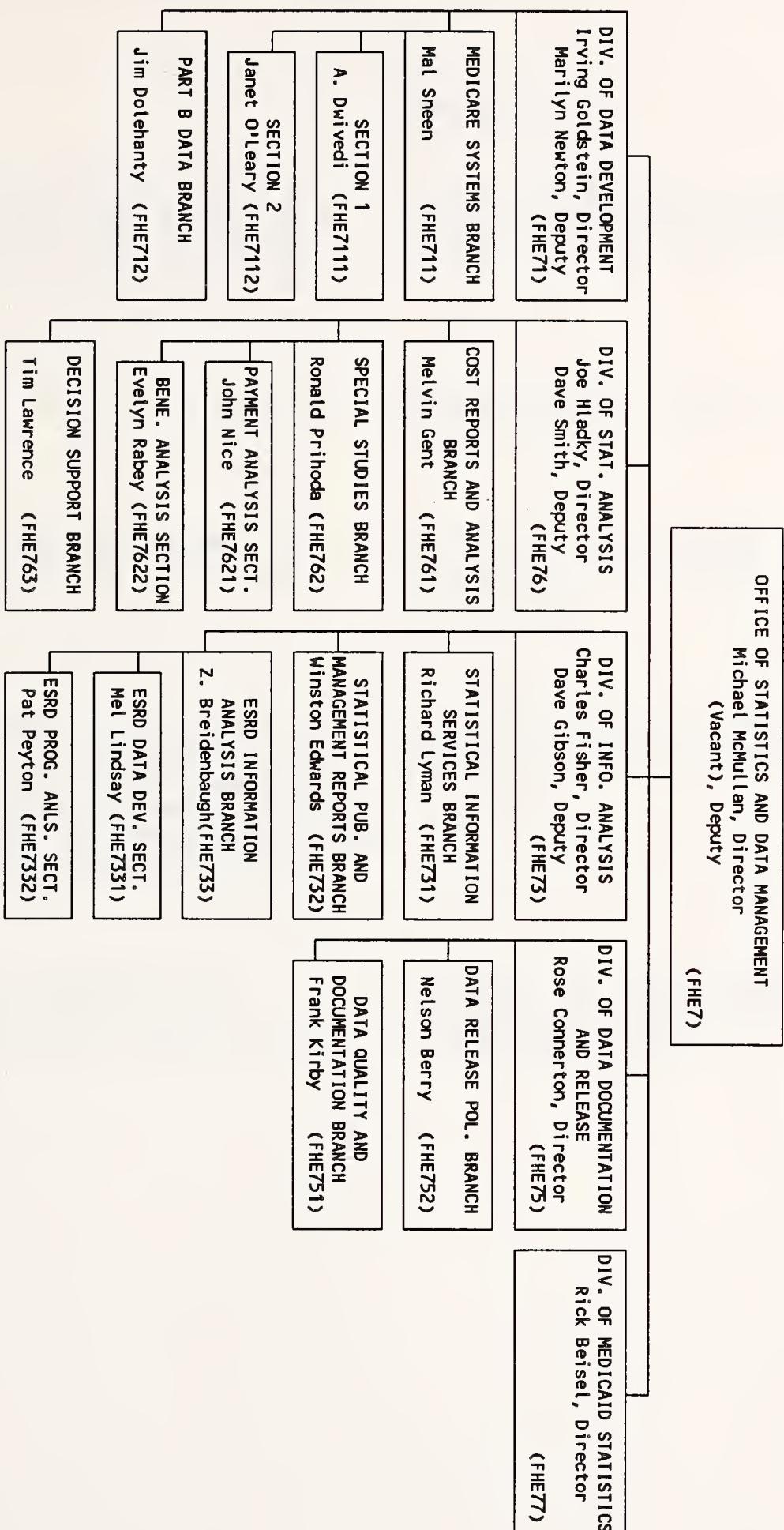
Manages the process to select enrollment samples, provide demographic information, and obtain Administrator approval for epidemiologic studies, many of which involve beneficiary interviews.

Manages the development, creation, documentation, dissemination, and pricing of HCFA data files to the research community and the general public.

Develops special data analysis to support program evaluation and research.



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 HEALTH CARE FINANCING ADMINISTRATION  
 ASSOCIATE ADMINISTRATOR FOR MANAGEMENT  
 BUREAU OF DATA MANAGEMENT AND STRATEGY  
 OFFICE OF STATISTICS AND DATA MANAGEMENT





MEDICARE AND MEDICAID PROGRAMSMEDICARE

Medicare established Part A Hospital Insurance and Part B Supplementary Medical Insurance for the Aged (Title 18)

Medicare is a Federal program

Medicare eligibility is determined by age or health conditions

Medicare Part A is financed from receipts of payroll tax; Medicare Part B premiums are paid by beneficiaries or third party payers and appropriations from Federal general funds

Medicare is administered nationally according to uniform national regulations

MEDICAID

Medicaid created a Federal-State Health Care Program for the Needy (Title 19)

Medicaid is a Federal-State partnership

Medicaid eligibility is determined by income or resources

Medicaid is financed from State and Federal general revenues

Medicaid is administered by States under their medical assistance plans



MEDICARE SERVICESMEDICARE - PART A

Inpatient Hospital Care (Longer Length of Stay Under Catastrophic)

Skilled Nursing Service

Home Health Services

Hospice

MEDICARE - PART B

Physician Services

Outpatient Hospital Care

Ambulatory Surgery Centers

Outpatient Physical Therapy and Speech Pathology Services

Other Services and Supplies

FUTURE BENEFITS

Drugs



MEDICAID SERVICESREQUIRED SERVICES

1. Inpatient/Outpatient Hospital Services
2. Physician Services
3. Laboratory and X-Ray Services
4. Skilled Nursing Facilities
5. Home Health Care
6. Early and Periodic Screening  
Diagnosis and Treatment Services for Children
7. Rural Clinics
8. Family Planning
9. Nurse Midwives (Where Licensed)

OPTIONAL SERVICES

1. Intermediate Care Facilities
2. Drugs
3. Dental Services
4. Clinics
5. Other Health Care Practitioners
6. Prescription Eye Glasses
7. Physical Therapy



MEDICARE DECISION SUPPORT SYSTEM OVERVIEW

MANAGER: Office of Statistics and Data Management  
Bureau of Data Management and Strategy  
Health Care Financing Administration

TITLE: Medicare Decision Support System

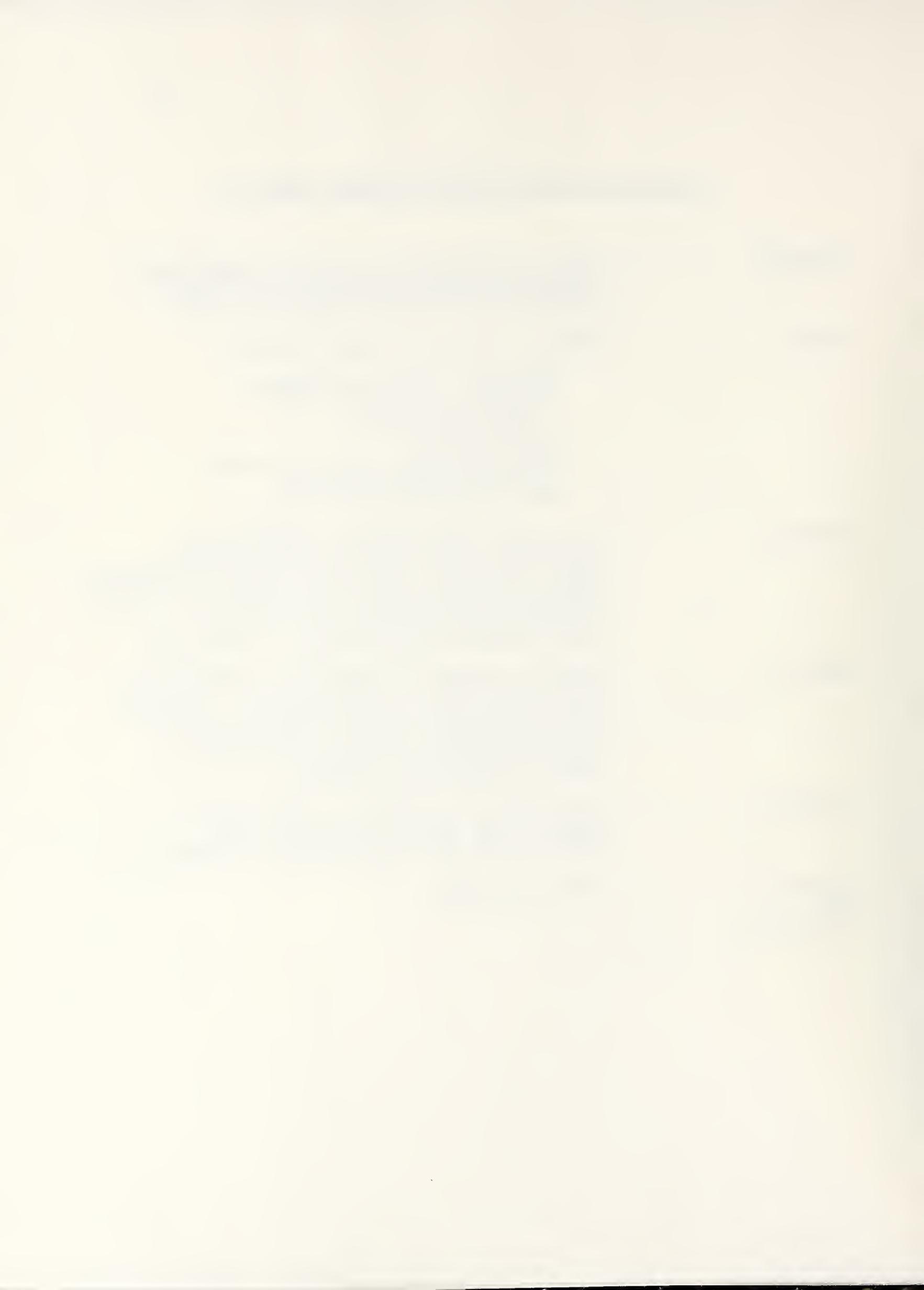
Director: Michael McMullan  
Office of Statistics and  
Data Management  
Third Floor  
Security Office Park Building  
6325 Security Boulevard  
Baltimore, Maryland 21207

PURPOSE: To provide HCFA decision makers and  
researchers information on the enrollment  
and health care utilization of Medicare  
beneficiaries as well as information on the  
impact of HCFA payment policies on  
beneficiaries and providers of services.

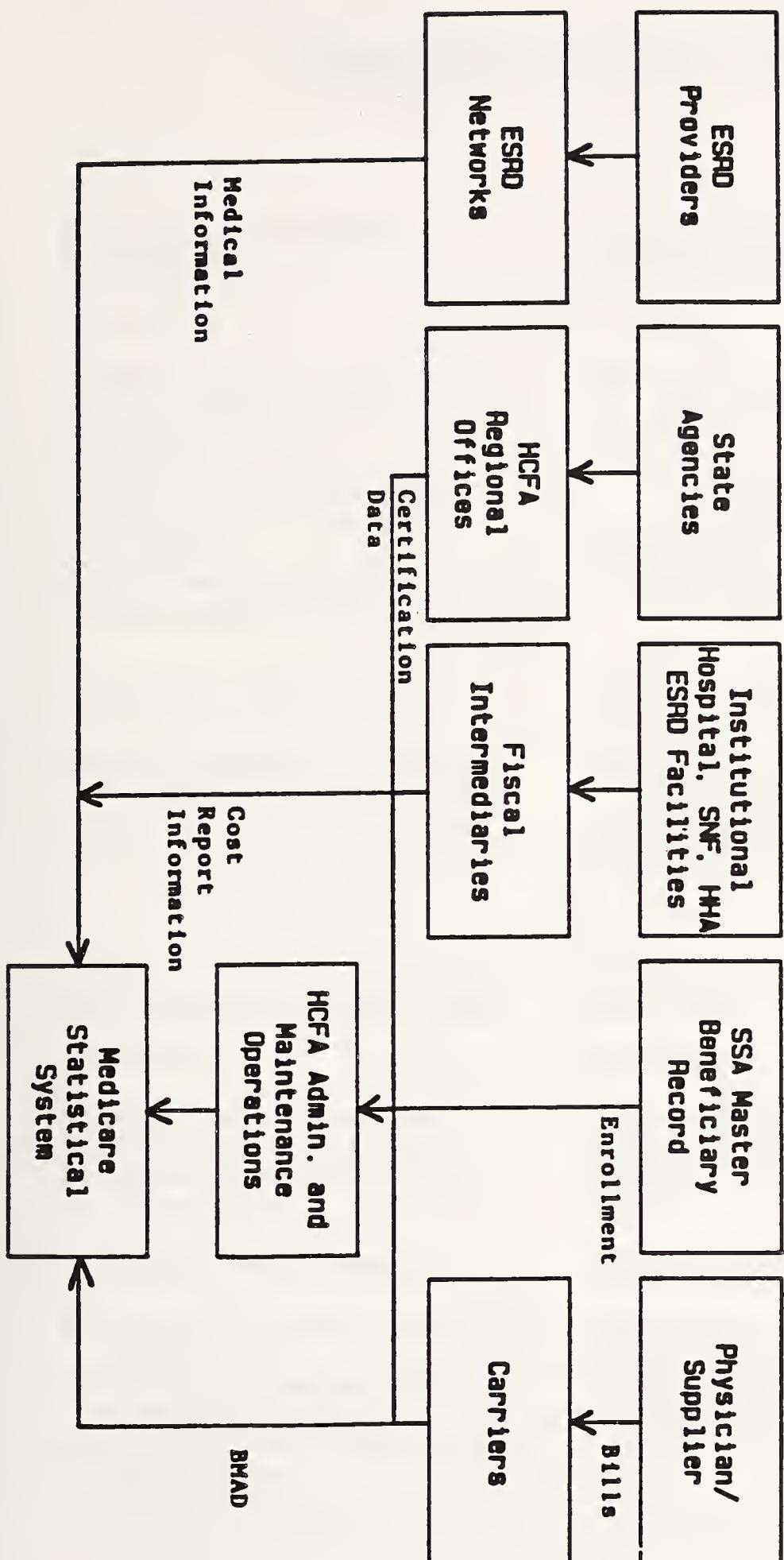
DESIGN: Entire universe (33 million) of Medicare  
beneficiaries which encompasses more than  
95% of Americans age 65 and over. Also  
includes persons who are disabled or  
suffering from End Stage Renal Disease  
(ESRD), regardless of age.

CONTENT: Beneficiary identifiers, demographics,  
eligibility, medical treatment and  
utilization, and expenditure information.

YEARS OF:  
DATA  
COLLECTION 1966 to present



## MEDICARE DATA FLOW





MEDICARE DECISION SUPPORT SYSTEM  
TYPES OF DATA COLLECTED

Medicare Enrollment Information

Contents:

Dates of Birth, Enrollment  
 Death, State, County, Zip  
 Code, Sex, Race  
 Medicare Eligibility:  
 Aged, Disabled, ESRD  
 State Buy-in (Premium  
 Payment)  
 Health Maintenance  
 Organization Participation

Principal Data Bases:

Health Insurance Skeleton  
 Eligibility Write-off  
 Group Health Plan Master

Medicare Utilization Data

Contents:

Charges/Reimbursements  
 Length of Stay/Visits  
 Diagnostic and Surgical  
 Information

Principal Data Bases:

Medicare Provider Analysis  
 and Review  
 Medicare Automated Data  
 Retrieval System  
 Continuous Medicare History  
 Sample (5%)  
 Skeleton Utilization  
 Records (9513)

ESRD Program Management and  
 Medical Information

Contents:

Enrollment and Utilization for  
 Medicare ESRD Population  
 Treatment Specific Data  
 . Cause of Disease  
 . Transplant Status  
 . Cause of Death  
 Provider Characteristics and  
 Treatment Surveys

Principal Data Bases:

End Stage Renal Disease (ESRD)  
 Program Management and  
 Medical Information (PMMIS)  
 ESRD Facility System

Provider Facility Data

Contents:

Provider Characteristics  
 Medicare Certification Status  
 Payment Variables (PPS)

Principal Data Bases:

Provider of Service  
 Provider Specific File  
 Prospective Payment System  
 Wage Index File



Part B Medicare Annual  
Data

Contents:

Part B Procedures

- Related Frequency
- Submitted/Paid Amount
- Prevailing Charge Data
- Line Item Claims Data

Medical Procedures Coded  
Using HCFA Common  
Procedure Coding System  
(HCPCS)

Medicare Cost Report  
Information

Contents:

- Provider Characteristics
- Costs
- Revenues
- Days
- Discharges
- Salaries
- Visits

Principal Data Bases:

Part B Medicare Annual Data

- Procedure
- Prevailing Charge
- Provider
- Beneficiary

Principal Data Bases:

Hospitals Prospective Payment  
System (PPS)

- PPS I
- PPS II
- PPS III
- PPS IV

Skilled Nursing Facilities

- Section 223 Cost Limits
- COBRA calls for SNF PPS

Home Health Agencies

- Section 223 Cost Limits

ESRD Facilities and Centers

- Dialysis Prospective Rate

Special Cost Studies

- Ambulatory Surgical Centers
- Hospice



## MAJOR MEDICARE STATISTICAL FILES BY DATA CATEGORY

Most Medicare Statistical files are summarized on a calendar-year basis by the year the service was incurred. The files contain varying amounts of detail on charges, days of care, Medicare reimbursement, beneficiary characteristics, and provider characteristics. In addition to the files, an ongoing series of detailed tabulations are prepared containing data on enrollment, bills, charges, days of care, and reimbursements by type of Medicare benefit Nationally, by State, and some, by county residence.

### A. Utilization - Institutional Providers

#### 1. Medicare Provider Analysis and Review (MEDPAR)

An annual file of hospital discharges containing detailed accommodation and departmental charge data, days of care, diagnostic/surgical information, beneficiary and hospital demographics. The file size was increased to 100 percent on October 1, 1983. Previously, MEDPAR was for a 20 percent sample of beneficiaries.

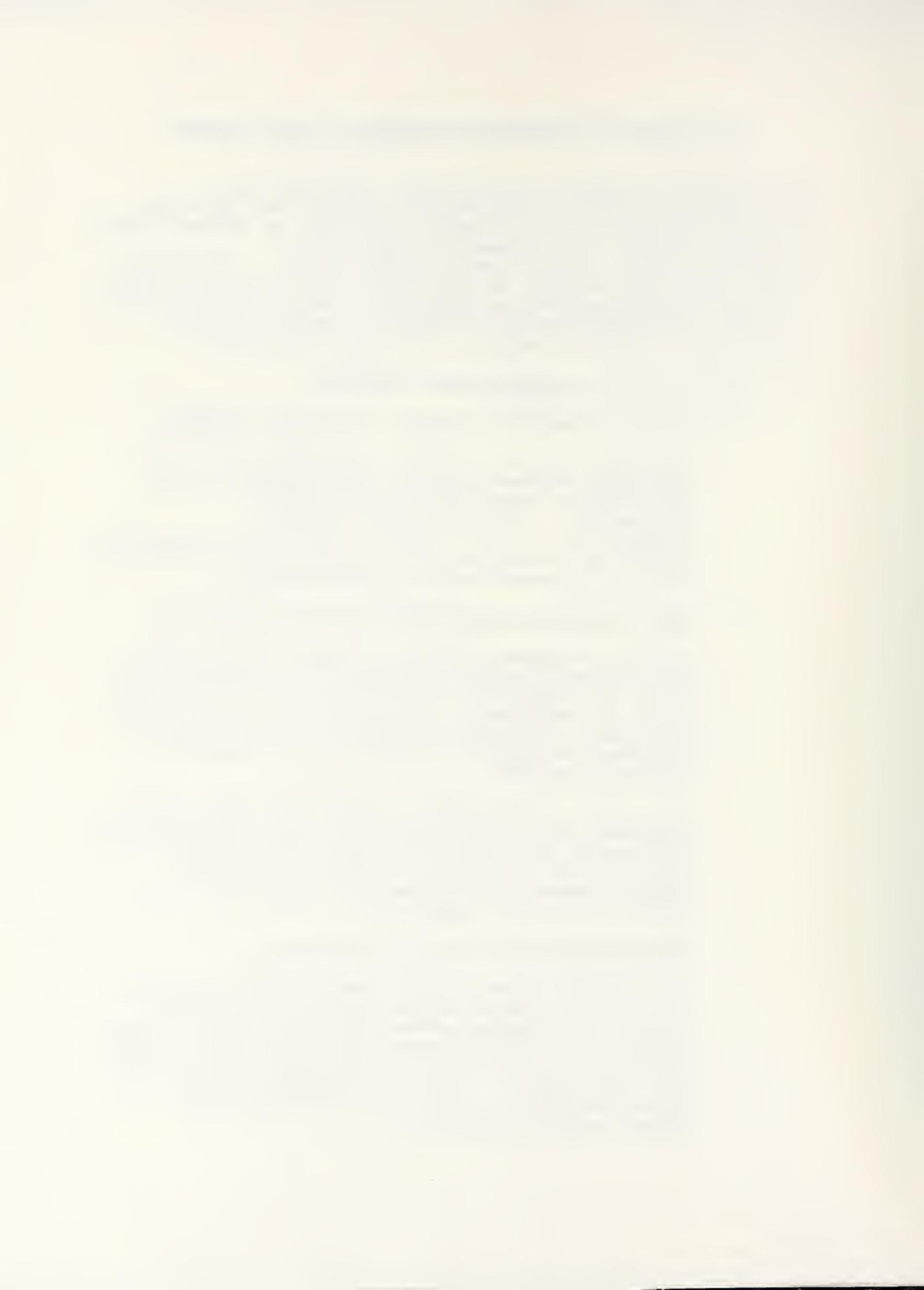
#### 2. Health Insurance A/B Utilization Skeleton File

The file contains selected information from each detailed billing and payment record processed by HCFA. The write-off occurs weekly. The State and County of residence contained in the file reflect the place of residence recorded in the Health Insurance Master File at the time the record was processed by HCFA.

This file is the source of State and County reimbursement data which are used in the calculation of the Average Adjusted Per Capita Cost (AAPCC). A separate field containing the estimated pass-through amount for PPS hospital inpatient stays is added to the file annually.

#### 3. Provider Summary Record - 100 Percent

This file contains current and prior-year summary utilization information by Medicare certified hospital, including number of bills, days of care, charges, and reimbursement. The file also contains provider location data and, beginning October 1983, DRG information. This file is primarily used for Admission Pattern Monitoring and Prospective Payment System monitoring.



4. Annual Home Health Agency Bill File - 40 Percent Sample

Contains HHA billing data and beneficiary characteristics.

5. Annual Outpatient Bill File - 5 Percent Sample

Contains outpatient billing information and beneficiary characteristics.

6. Skilled Nursing Facility Stay Record File - 100 Percent

An annual file of admissions with billing information, admitting diagnosis, and beneficiary characteristics.

B. Part B Data - Physicians Ambulatory Surgical Centers and Suppliers

Part B Medicare Annual Data Files (BMAD)

The Part B data are provided in four separate files; carriers extract the data annually from their claims processing history files.

I. Procedure File - Provides an array of every procedure processed showing the related frequency, submitted charge, and paid amount. This gives HCFA detail on the services processed by carriers.

II. Prevailing Charge File - Provides HCFA with the prevailing charge limits for each service contained in the Procedure File. This allows HCFA to study and accurately project payment levels.

III. Provider File - Contains line-by-line detail from claims history of procedures rendered by a 1 percent sample of physician/suppliers. This allows HCFA to study the impact of actual and projected program changes on them. It also allows HCFA to conduct longitudinal analysis of practice trends. This sample is increased to 5 percent for 1985.

IV. Beneficiary File - Contains line-by-line detail from claims history of services received for a 5 percent sample of aged and disabled beneficiaries and all ESRD beneficiaries. This allows HCFA to link, based upon the beneficiary health insurance claim number, a beneficiary's Part B service utilization data with the Part A service utilization data.



### C. Longitudinal Utilization and Beneficiary Data

#### 1. Continuous Medicare History Sample - 5 Percent Sample

A summary file which links data covering all Medicare benefits on a 5 percent sample of beneficiaries characteristics on a continuous annual basis. Beneficiary characteristics and summarized Part A and Part B utilization data are included. The file can be used as a longitudinal statistical data base to study beneficiary utilization of all Medicare benefits.

#### 2. Medicare Automated Data Retrieval System (MADRS)

MADRS is designed to organize the massive 100 percent Bill and Payment Record File to index them so that it will be easier and less expensive to retrieve data for program management and research and demonstration purposes.

MADRS contains 100 percent of hospital bills, outpatient bills, skilled nursing facility (SNF) bills, home health agency (HHA) bills, and physician and supplier payment records. Often claims records files are separated into Part A and Part B depending on which Medicare insurance program covers them; MADRS contains both types of claims. The more important data elements available in these claims are patient health insurance number, provider number, reason for entitlement, dates of service, types of services, diagnosis, charges, reimbursed amounts, and coinsurance and deductibles.

### D. Financial Data

#### 1. Hospital Cost Report Information System (HCRIS)

HCRIS is an automated data collection, processing, and report generation system that contains hospital-specific financial and statistical cost report data from Medicare certified hospitals and hospital/health care facility complexes beginning with hospital fiscal years ending on or after January 1, 1982. HCRIS also contains Title V and/or Title XIX data when the hospital is reimbursed under the program(s) on a reasonable-cost basis and the Medicare fiscal intermediaries (FIs) are responsible for processing and setting their cost reports.



## 2. Section 223 Cost Limit File for SNFs and HHAs

This file contains data abstracted from cost reports submitted by SNFs and HHAs. The file is processed to develop the limits on Medicare payments to these institutions, as mandated by Congress.

## E. Institutional Provider Identification and Certification

### 1. Provider of Services (POS)

As a by-product of the Medicare/Medicaid Automated Certification System (MMACS), data which identifies and characterizes the participating institutional providers (hospitals, HHAs, etc.) are collected through the regions and recorded centrally in a continually updated data base. The data are used both administratively by HCFA and/or the Peer Review Organizations (PROs) and for many statistical reports. Additionally, the POS data are appended to the billing records to enable tabulation of utilization by provider characteristics.

### 2. Provider Specific File

The Provider Specific File is a component of the PRICER used in the FIs' systems to compute individual DRG payments. It supplies essential data elements in the Prospective Payment System (PPS) recalibration processes and related PPS activities. The FIs have been instructed in a manual issuance to submit the history Provider Specific records at the end of each calendar quarter.

## F. Beneficiary Entitlement and Demographics

### Health Insurance Skeleton Write off (HISKEW) - 100 - Percent

This file contains selected beneficiary entitlement and demographic information from the Health Insurance Master File such as age, sex, race, State, County, Zip code, and entitlement. It is used to prepare an ongoing series of enrollment tabulations detailing the number and characteristics of Medicare beneficiaries.



G. ESRD Program Data

End Stage Renal Disease Program Management and Medical Information System (ESRD PMMIS)

The ESRD PMMIS is a uniform data base of national scope which contains basic medical and program management data elements relatd to the services provided by Medicare-approved ESRD facilities in the treatment of dialysis and kidney transplant patients.

The ESRD PMMIS includes a comprehensive patient-based system which includes by patient:

- identifying characteristics;
- primary disease;
- first date of ESRD care;
- incidence records on dialysis and transplantation;
- incidence of hospitalization and outpatient care;
- date and cause of death;

and an all inclusive facility-based system included by Medicare-approved ESRD provider:

- identification and certification charactertistics;  
and
- aggregate treatment surveys.



MEDICAID DECISION SUPPORT SYSTEM OVERVIEW

**MANAGER:** Office of Statistics and Data Management  
Bureau of Data Management and Strategy  
Health Care Financing Administration

**TITLE:** Medicaid Statistical Information System  
(MEDSTAT)

Director: Michael McMullan  
Office of Statistics and  
Data Management  
Third Floor  
Security Office Park Building  
6325 Security Boulevard  
Baltimore, Maryland 21207

**PURPOSE:** To collect and manage information on  
individuals and medical related services  
covered by the Medicaid program.

**DESIGN:** Participating States provide HCFA with  
quarterly files containing specified data  
elements for: (1) Persons covered by  
Medicaid, and (2) Claims for medical  
services reimbursed with Title XIX funds.  
These data are furnished on a Federal  
Fiscal Year quarterly schedule.

**CONTENT:** Eligible files contain one record for each  
person covered by Medicaid for at least  
one day during the reporting quarter.  
Individual Eligible records consist of  
demographic information and monthly  
enrollment data. Paid claim files contain  
fully adjudicated medical service related  
claims that have completed the State's  
processing cycle, for which the State has  
determined that it has a liability to  
reimburse the provider from Title XIX  
funds. Paid claim records contain  
information on the types of services  
provided, service dates, costs, and type  
of reimbursement.

**YEARS OF DATA  
COLLECTION:** The MEDSTAT project began in 1984. There  
is very limited data available for 1985.  
In 1986 12 States provided a full year of  
data, while in 1987, 17 States submitted  
data for the full year.

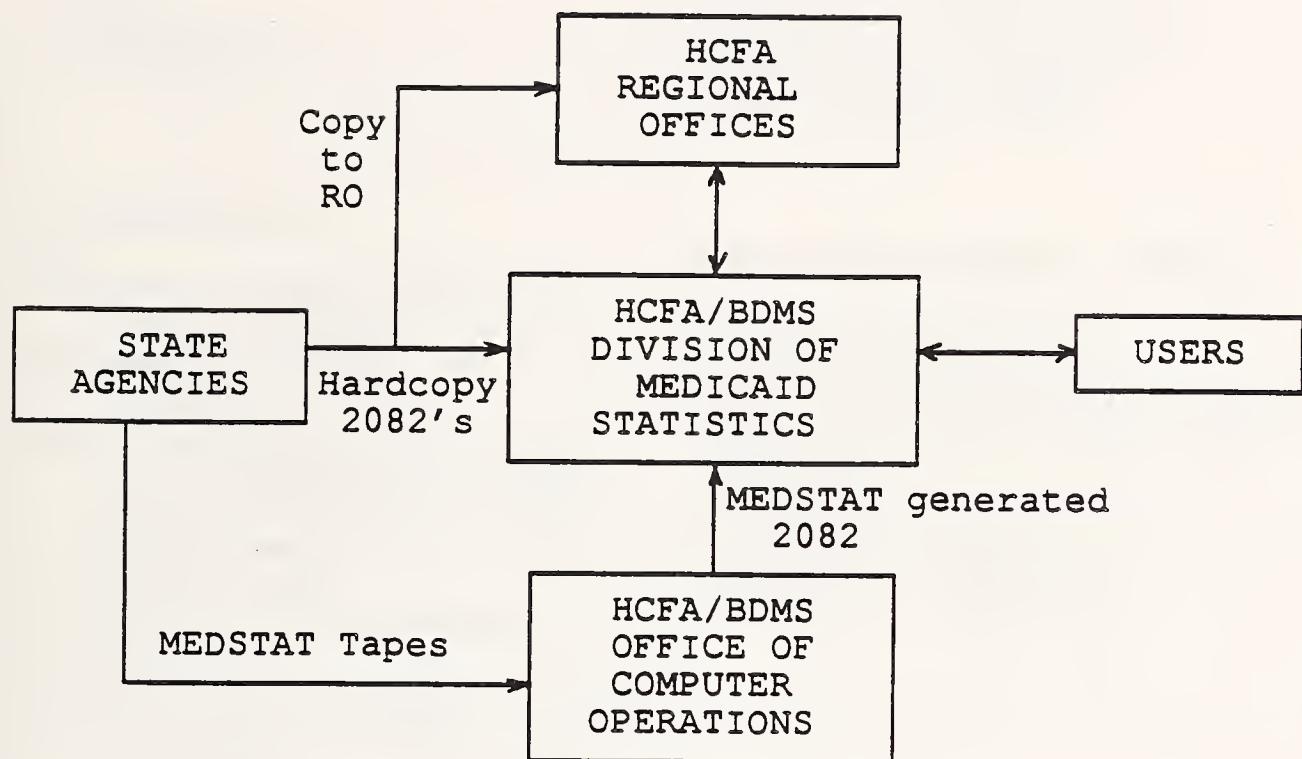


**PUBLICATIONS:** A public use file will be available in June, 1989. Tape Specifications and Data Dictionary - Version 2.4 published on October 10, 1988.

**UNPUBLISHED:** Information from the Statistical Report on Medical Care: Eligibles, Recipients, Payments, and Services (HCFA-2082) has been published, but no extracts from the individual data have been published thus far.



## MEDICAID DATA FLOW





MEDICAID STATISTICAL INFORMATION SYSTEM (MEDSTAT)  
TYPES OF DATA COLLECTED

Demographic

Date of Birth  
 Date of Death  
 Sex  
 Race  
 County Code  
 ZIP Code

Medical Facility Information  
 (all types)

Place Service was Delivered  
 Type of Provider  
 Provider Identification No.  
 Diagnostic Information  
 Date Service Began  
 Date Service Ended

Eligibility

Number of Days Eligible  
 During Month  
 State's Eligibility  
 Grouping  
 Aid to Families of  
 of Dependent Children/  
 Supplemental Security  
 Income Related  
 Eligibility  
 Financial Assistance  
 Status  
 Health Maintenance  
 Organization Enrollment  
 Indicator

Inpatient Hospital Service

Date of Admission  
 Procedures Performed  
 Date Procedures were Performed  
 Inpatient Days Covered by  
 Medicaid  
 Accommodation Charges  
 Ancillary Charges  
 Status of Discharge

Medical Payment

Type of Financial Coverage  
 Amount Charged  
 Other Third Party Payment  
 Medicaid Payment  
 Date State Received Claim  
 Date Claim was  
 Adjudicated

Long Term Care Services

Date of Admission  
 Days of Care in Facility  
 Days on Leave from Facility  
 Status of Discharge

Other Service Information

Type of Service Delivered  
 Quantity of Services Delivered  
 Drug Code (NDC) Information



MEDICAID STATISTICAL INFORMATION SYSTEM (MEDSTAT)  
SYSTEMS OF MEDICAID RECORDS AVAILABLE

There are three distinct systems of records generated from the State supplied Medicaid files:

1. Detailed validated (VALID Tapes) files contain the individual eligible and claims records submitted by the States. These files serve as the historical source of detailed Medicaid Eligibility and Paid Claims data maintained by MEDSTAT.
2. PERSONAL SUMMARY RECORD FILE An Eligible (Personal) Summary file is compiled for each State, for the current ("year to date") Federal Fiscal Year. Files for the previous reporting year are also available on-line at the HCFA Data Center (HDC) in a database environment. Each file contains one record for every person reported eligible for Medicaid during any portion of the Federal reporting year. The information in this file includes: demographic data, eligibility classifications, days and months of eligibility, days of care, number of discharges, Medicaid cost, Medicare deductible, coinsurance payments, type of insurance coverage, types of services received with related cost, and quantities of services received.
3. MEDSTAT HCFA-2082 TOTALS FILE These data are in a highly aggregated format, in an on-line database, which contains summarized eligibility, recipient and claim expenditure information similar to the HCFA-2082 report. These data are also available in a flat file format that includes data captured from the HCFA-2082 hard-copy report. The hard-copy report is received from all States that are not participating in the MEDSTAT project. The HCFA-2082 is a 77 page report with approximately 8,000 aggregated data entries.



STATES PRESENTLY PARTICIPATING IN MEDSTAT

Alabama  
Alaska  
Arkansas  
California  
Delaware  
Georgia  
Hawaii  
Iowa  
Indiana  
Kansas  
Kentucky  
Maine  
Michigan  
Minnesota  
Missouri  
Montana  
New Hampshire  
New Jersey  
Nevada  
North Dakota  
Pennsylvania  
Utah  
Vermont  
Washington  
Wisconsin



DATA DOCUMENTATION AND RELEASE OVERVIEWDATA DOCUMENTATION

- Data File Profiles
- Statistical Files Manual
- Public Use Files
- Data Base Documentation

DATA RELEASE

- Freedom of Information Act
- Privacy Act
- Data Release Agreements
- Research



DATA RELEASE PROVISIONS

## Freedom of Information Act (FOIA)

- Public has right to access a Federal agency's records unless one of nine exemptions applies. Use of the exemptions is the agency's option.
- Exemptions generally used by HCFA:
  - . Related solely to the internal personnel rules and practices of an agency;
  - . inter-agency or intra-agency memoranda or letters which would not be available by law other than an agency in litigation with the agency; and
  - . personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

## Privacy Act

- Precludes the disclosure of personal identifiable information protected by the Act unless one of 12 disclosure provisions applies.
- Personal identifiable data may be disclosed to:
  - . Department of Health and Human Services components on a need to know basis;
  - . Under FOIA if public good would be accomplished;
  - . Disclosure is compatible with the purposes for which the data are collected, i.e., program operation;
  - . Bureau of Census;
  - . National Archives;
  - . Law Enforcement agencies;
  - . Emergencies involving the person's own health safety;
  - . Congress;
  - . General Accounting Office;
  - . Pursuant to a court order; and
  - . Consumer reporting agency.

Note: Statistical data may be released if the identities of individuals are indeterminable.

## Data Release Agreements

- Required for all identifiable data released outside of HCFA (Sample Attached).



## AGREEMENT FOR RELEASE OF INDIVIDUAL IDENTIFIABLE DATA

Release of \_\_\_\_\_ data.

A. I, \_\_\_\_\_, representing \_\_\_\_\_

agree to observe the following conditions of use of the microdata files released to me or derived from such files.

1. The files will be used only for the following purpose(s):

Any other uses will be subject to prior approval by the Health Care Financing Administration (HCFA).

2. None of these files or any files extracted or derived from these files will be released to any other organization or individual in identifiable form without HCFA approval.
3. \_\_\_\_\_ will be designated as custodian of these files and will be responsible for observance of all conditions of use and for establishment and maintenance of security arrangements to prevent unauthorized use. If the custodianship is transferred within the organization, HCFA will be notified promptly.
4. No listings or information from individual records, with or without identifiers, will be published or otherwise released by the holder of these files. No statistical tabulations or research results will be released which reveal information about identifiable individuals.
5. Authorized representatives of the Health Care Financing Administration will, upon request, be granted access to premises where the files are kept for the purpose of inspecting physical security arrangements.
6. The files (or any derivative files) will be retained by \_\_\_\_\_ until \_\_\_\_\_ and then destroyed or returned to HCFA. No data, copies of data, or parts thereof shall be retained when the data are returned or destroyed.



B. I have received and read the Privacy Act and section 1106 (a) of the Social Security Act, and I am aware that any person who knowingly and willingly requests or obtains any record under false pretenses shall be guilty of a misdemeanor and fined not more than \$5,000 under the Privacy Act and may be punished by a fine not exceeding \$1,000, or by imprisonment not exceeding one year, or both, under the Social Security Act.

(Typed name of representative and organization)

(Telephone number)

(Signature)

(Date)

(Typed name of custodian of files, if different)

(Telephone number)

(Signature)

(Date)

(Typed name/agency of Federal representative)

(Signature)

(Date)





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Health Care Financing Administration  
Bureau of Data Management and Strategy  
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